BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

A		B		C	X

File No.: T 0805/91 - 3.2.1

Application No.: 84 308 302.3

Publication No.: 0 149 321

Classification: B65D 75/00, B32B 27/08, B65D 65/40

Title of invention: Heat-shrinkable laminate tubular film and process for producing it

D E C I S I O N
of 17 June 1993

Applicant:

Proprietor of the patent: Kureha Kagaku Kogyo Kabushiki Kaisha

Opponent: W.R. Grace & Co.

Headword:

EPC: Article 56

Keyword: "Inventive step (yes)"

Headnote
Catchwords

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0805/91 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 17 June 1993

Appellant: (Opponent)
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office dated 16 July 1991, and issued in writing on 9 August 1991, rejecting the opposition filed against European patent No. 0 149 321 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: F. Gumbel
Members: S. Crane
J.-C. de Preter

Summary of Facts and Submissions

I. European patent No. 0 149 321 was granted on 13 July 1988 on the basis of European patent application No. 84 308 302.3.

Independent Claims 1 and 6 of the granted patent read as follows:

"1. A co-extruded and biaxially stretched, heat-shrinkable laminate tubular film comprising a gas-barrier layer of a copolymer of vinylidene chloride having a thickness of not less than 6 µm and not more than 30% of the total thickness of the tubular film, outer layers of a polyolefin, at least one intermediate layer of a polyamide or a thermoplastic polyester both of which show a crystal melting point of not more than 240°C and have a thickness of 5 to 40% of the total thickness of the tubular film and adhesive layers disposed between any of the above layers."

"6. Process for producing a heat-shrinkable laminate tubular film according to Claim 1, comprising feeding a copolymer of vinylidene chloride as a gas-barrier layer, a polyolefin as outer layers, a polyamide or a thermoplastic polyester as at least one intermediate layer and an adhesive material as adhesive layers to an annular die provided with passages for the gas-barrier layer, the outer layers, the intermediate layer(s) and the adhesive layers and with heat transfer preventing spaces disposed on the both sides of the passage(s) of the intermediate layer(s), in a molten state, the end portions of the passages of the gas-barrier layer, the outer layers, the intermediate layer(s) and the adhesive layers emerging into a common outlet of the annular die, laminating and extruding the copolymer of vinylidene chloride, the polyolefin, the polyamide or the

thermoplastic polyester and the adhesive material, thereby forming laminate tubular film at the outlet of the annular die,

cooling the resultant laminate tubular film by quenching, and

after heating the laminate tubular film, biaxially stretching the resultant laminate tubular film."

Dependent Claims 2 to 5 relate to preferred embodiments of the film according to Claim 1.

II. The granted patent was opposed by the Appellants on the ground that its subject-matter lacked inventive step with respect to the state of the art (Article 100(a) EPC). The following state of the art documents were relied upon

(D1) EP-A-51 480
(D2) GB-A-1 486 849
(D3) US-A-4 355 721.

III. By its decision given at oral proceedings on 16 July 1991, and issued in written form on 9 August 1991, the Opposition Division rejected the opposition.

The reason given for the decision was in essence that it had not been shown that it would have been obvious to incorporate an intermediate polyamide or polyester layer into the polyolefin-PVDC-polyolefin laminate film known from document D1 in order to improve both the rigidity and stretchability of that film. Furthermore, the relatively high temperature required to extrude the polyamide or polyester layer would be expected to lead to thermal decomposition of the PVDC layer and would be seen by the skilled man as an obstacle to the use of a polyamide or polyester layer in this context.

IV. An appeal against this decision was filed on 17 October 1991 and the fee for appeal paid on the same day. The Statement of Grounds of Appeal was filed on 17 December 1991.

The Appellants requested that the contested decision be set aside and the patent revoked in its entirety.

V. In a letter dated 10 February 1992 the Appellants referred to a further state of the art document, viz.

(D4) US-A-3 821 182.

With particular reference to this document the Appellants argued that the technical means necessary to co-extrude PVDC and a polyamide or polyester were known to the skilled man so that the finding of the Opposition Division that there was a technical prejudice against doing this was incorrect and as a result the decision to reject the opposition was as a whole defective.

VI. In a reply dated 2 July 1992 the Respondents (Proprietors of the patent) argued that there was no excuse for the introduction of document D4 so late in the proceedings and that it should therefore be disregarded. In any case it did not relate to the formation of a laminate film in any way comparable to that claimed.

VII. In a communication dated 22 October 1992 pursuant to Article 110(2) EPC, which set a time limit of two months for filing observations, the Board gave its provisional opinion on the matter.

It stated that having regard to document D4 it could not be argued that there existed a genuine technical prejudice against the co-extrusion of polyamide or polyester and PVDC. This was, however, not the central

reason given in the contested decision for confirming the inventive step of the claimed subject-matter. That reason, with which the Board essentially concurred, was the absence of any indication in the prior art that could have led the skilled man to the particular form of the laminate film claimed.

Apart from requesting, with a letter dated 16 December 1992, an extension by two months of the time limit for filing observations the Appellants did not reply to this communication.

Reasons for the Decision

1. The appeal satisfies the formal requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is, therefore, admissible.

2. In its communication of 22 October 1992 the Board clearly expressed its view, in confirmation of what had been said in the contested decision, that there was nothing in the cited state of the art that could suggest to the skilled man to include a polyamide or polyester layer within the polyolefin-PVDC-polyolefin film known from document D1 in order to improve both its rigidity and stretchability. Thus, although the Board could agree with the statement of the Appellants in their submission dated 10 February 1992, that if the skilled man desired to incorporate a polyamide or polyester layer into the known film he would not need to overcome a technical prejudice to do so, it was not satisfied that the idea to do this followed in an obvious manner from the state of the art.

The Appellants have made no substantive reply to this communication and after considering the facts of the case anew the Board can see no justification for departing from the view previously expressed that the subject-

matter of independent Claims 1 and 6 was not obvious to the skilled man and therefore involved an inventive step (Article 56 EPC).

Order

For these reasons, it is decided that:

The appeal is dismissed.

The Registrar:

N. Maslin

The Chairman:

F. Gumbel